## ABSTRACT OF THE DISCLOSURE

A shaped-wave application section inputs a first pulse signal corresponding to transmission data output from a transmission data output section, and applies, to a modulation and amplification section, a signal wave corresponding to a second pulse signal such that the waveform of the first pulse signal is shaped. The pulse signal applied to the base of the transistor of the modulation and amplification section is amplitude-modulated into an amplitude-modulated wave in which the amplitude-modulated portion is strengthened, in accordance with the signal wave corresponding to the second pulse signal applied to the emitter thereof. The amplitude-modulated wave is supplied to an antenna section including a resonance circuit via the collector thereof, and is transmitted as an electromagnetic wave from the antenna section.